

Doc Code:

PTO/SB/64 (09-06)  
Approved for use through 03/31/2007. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT  
ABANDONED UNINTENTIONALLY UNDER 37 CFR 1.137(b)**

**Docket Number (Optional)**  
**MAR-0003**

First named inventor: **Dennis R. Hayward**

Application No.: **09/595,201**

Art Unit: **3613**

Filed: **June 16, 2000**

Examiner: **Pamela Rodriguez**

Title: **BRAKE ASSEMBLY**

Attention: Office of Petitions  
**Mail Stop Petition**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
FAX: (571) 273-8300

NOTE: If information or assistance is needed in completing this form, please contact Petitions Information at (571) 272-3282.

The above-identified application became abandoned for failure to file a timely and proper reply to a notice or action by the United States Patent and Trademark Office. The date of abandonment is the day after the expiration date of the period set for reply in the office notice or action plus any extensions of time actually obtained.

**APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION**

NOTE: A grantable petition requires the following items:

- (1) Petition fee;
- (2) Reply and/or issue fee;
- (3) Terminal disclaimer with disclaimer fee --required for all utility and plant applications filed before June 8, 1995; and for all design applications; and
- (4) Statement that the entire delay was unintentional.

**1. Petition fee**

- ☐ Small entity-fee \$ \_\_\_\_\_ (37 CFR 1.17(m)). Applicant claims small entity status. See 37 CFR 1.27.
- ☒ Other than small entity - fee \$ **1,500** (37 CFR 1.17(m))

**2. Reply and/or fee**

- A. The reply and/or fee to the above-noted Office action in the form of **RESPONSE TO OFFICE ACTION ISSUED 03/01/2001** (identify type of reply):
- ☐ has been filed previously on \_\_\_\_\_.
- ☒ is enclosed herewith.
- B. The issue fee and publication fee (if applicable) of \$ \_\_\_\_\_.
- ☐ has been paid previously on \_\_\_\_\_.
- ☐ is enclosed herewith.

[Page 1 of 2]

This collection of information is required by 37 CFR 1.137(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Doc Code:

PTO/SB/54 (09-06)

Approved for use 03/31/2007. OMB 0651-0031  
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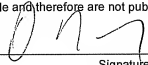
3. Terminal disclaimer with disclaimer fee

- ☒ Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.
- ☐ A terminal disclaimer (and disclaimer fee (37 CFR 1.20(d)) of \$ \_\_\_\_\_ for a small entity or \$ \_\_\_\_\_ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).

4. STATEMENT: The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional. [NOTE: The United States Patent and Trademark Office may require additional information if there is a question as to whether either the abandonment or the delay in filing a petition under 37 CFR 1.137(b) was unintentional (MPEP 711.03(c), subsections (III)(C) and (D)).]

**WARNING:**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

  
\_\_\_\_\_  
Signature  
**Daniel R. Gibson**  
\_\_\_\_\_  
Typed or printed name  
**CANTOR COLBURN LLP - 55 Griffin Road South**  
\_\_\_\_\_  
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**Bloomfield, CT 06002**  
\_\_\_\_\_  
Address

**May 4, 2007**  
\_\_\_\_\_  
Date  
**56,539**  
\_\_\_\_\_  
Registration Number, if applicable  
**860-286-2929**  
\_\_\_\_\_  
Telephone Number

- Enclosures: ☒ Fee Payment
- ☒ Reply
- ☐ Terminal Disclaimer Form
- ☐ Additional sheets containing statements establishing unintentional delay
- ☐ Other: \_\_\_\_\_

**CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]**

I hereby certify that this correspondence is being:

- ☐ deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
- ☐ Transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (571) 273-8300.

\_\_\_\_\_  
Date

\_\_\_\_\_  
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Type or printed name of person signing certificate

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Dennis R. Hayward et al.	)
SERIAL NO.:	09/595,201	) Group Art Unit: 3613
FILED:	June 16, 2000	) Examiner:
FOR:	BRAKE ASSEMBLY	) Pamela Rodriguez
		) Confirmation No.: 1202

**RESPONSE TO OFFICE ACTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Examiner Rodriguez:

This Response is submitted in reply to the Office action mailed 01 March 2001. With reference to the Petition to Revive submitted herewith, Applicant respectfully requests entry and consideration of the following:

**Listing of the Claims** beginning on page 2 of this paper; and

**Remarks** beginning on page 6 of this paper.

## LISTING OF THE CLAIMS

1. (Original) A brake assembly for a motor, the brake assembly comprising a stack of brake elements, at least one of which is rotatable with an output shaft of the motor, in use, and at least one of which is non-rotatable relative to a housing, and an actuator arrangement for controlling the magnitude of a compressive load applied to the brake elements, wherein the brake elements are provided, at least in part, with a surface coating which raises the coefficient of friction of the brake elements to a value greater than 0.2.
2. (Original) The brake assembly as claimed in Claim 1, wherein the surface coating raises the coefficient of friction to a value of at least 0.5.
3. (Original) The brake assembly as claimed in Claim 2, wherein the coefficient of friction falls within the range 0.5 to 0.6.
4. (Original) The brake assembly as claimed in Claim 1, wherein the surface coating is tungsten carbide forming a layer of thickness falling within the range 0.64 mm to 1.27 mm.
5. (Original) The brake assembly as claimed in Claim 1, wherein the stack of brake elements takes the form of a first brake element which is rotatable with the output shaft of the motor, in use, and a second brake element which is non-rotatable relative to the housing.
6. (Original) The brake assembly as claimed in Claim 5, wherein the second brake

element forms part of a cap forming part of the housing.

7. (Original) The brake assembly as claimed in Claim 5, further comprising an arrangement for preventing contact between the first and second brake elements when the actuator arrangement is actuated.

8. (Original) The brake assembly as claimed in Claim 7, wherein the arrangement for preventing contact between the first and second brake elements includes a secondary spring for biasing the first brake element away from the second brake element, the secondary spring providing a biasing force which exceeds the weight of the first brake element.

9. (Original) The brake assembly as claimed in Claim 8, wherein the actuator arrangement comprises an electromagnetic actuator arranged to act against a primary spring, the spring force due to the secondary spring being sufficient to overcome the weight of the first brake element but being less than the spring force due to the primary spring.

10. (Original) The brake assembly as claimed in Claim 9, wherein the arrangement for preventing contact between the first and second brake elements further comprises a stop member arranged to limit axial movement of the first brake element relative to an armature forming part of the actuator means.

11. (Original) The brake assembly as claimed in Claim 10, wherein the stop member takes

the form of a shoulder provided on a rotor shaft which is rotatable with the output shaft of the motor.

12. (Original) The brake assembly as claimed in Claim 11, wherein the rotor shaft is provided with an abutment member, the secondary spring being located between the abutment member and the first brake element.

13. (Original) The brake assembly as claimed in Claim 1, wherein at least one of the brake elements takes the form of a brake disc.

14. (Original) The brake assembly as claimed in Claim 1, wherein the actuator arrangement comprises an electromagnetic actuator arranged to act against a primary spring.

15. (Original) The brake assembly as claimed in Claim 14, wherein the electromagnetic actuator includes a winding located such that the brake elements are accessible without requiring removal of the winding from the motor.

16. (Original) A brake assembly for a motor, the brake assembly comprising a plurality of brake elements and an electromagnetic actuator arranged to permit control of a compressive load applied to the brake elements, wherein the actuator includes a winding located such that the brake elements are accessible without requiring removal of the winding from the motor.

17. (Original) The brake assembly as claimed in Claim 16, wherein the winding is located between the brake elements and the motor.

18. (Original) The brake assembly as claimed in Claim 16, wherein the brake elements form part of a module which can be removed from the motor and the remainder of the brake assembly as a unit.

19. (Original) The brake assembly as claimed in Claim 18, wherein the module further includes an armature forming part of the actuator.



## REMARKS

Claims 1-19 were pending as of the Office Action of March 1, 2001. Though the claims have not been amended, Applicant respectfully submits a listing of the claims for the Examiner's convenience. Applicant respectfully thanks the Examiner for finding the subject matter of claim 12 to be allowable. Applicant also respectfully submits with this Response a petition under 37 CFR 1.137(b) seeking revival of the Application due to unintentional abandonment.

### Claim rejections under 35 U.S.C. 102(b)

The Examiner rejects claims 16-19 under 35 U.S.C. 102(b) for allegedly being anticipated by United States Patent Number 6,119,825 to Nisley ("Nisley" hereinafter). Applicant respectfully traverses.

Applicant's claim 16 recites *inter alia*:

"a winding located such that the brake elements are accessible without requiring removal of the winding from the motor."

Applicant respectfully asserts that Nisley does not teach a winding element that is located such that brake elements are accessible without requiring removal of the winding from the motor. Instead, referring to Figure 3, Nisley teaches that access to brake elements 46 is achieved, firstly, via removal of the pushing element 48 and adjusting nut 50. Secondly, the "threaded or press fit" connection between the brake assembly and motor via the mounting post 26 must be severed by withdrawing the brake assembly along the shaft 14 in a direction away from the motor 10. As the windings 24 are part of the brake assembly winding removal clearly constitutes a removal of the windings from the motor. As such, Nisley clearly does not describe a winding located such that the brake elements are accessible without requiring removal of the winding from the motor, as is recited in Applicant's claim 16.

Therefore, for at least the reasons set forth hereinabove, Applicant respectfully submits that Nisley does not teach every element of Applicant's claim 16, or claims 17-19 that depend therefrom.

Referring now to claim 17 specifically, there is recited *inter alia*:

"wherein the winding is located between the brake elements and the motor."

Applicant respectfully asserts that Nisley does not teach a winding located between the brake elements and the motor. Instead, referring to Figures 1 and 3, Nisley teaches a motor that is located to the left hand side of the break arrangement in the orientation illustrated, thus positioning the brake elements 34, 46 between the motor 10 and the windings 24 as opposed to the winding between the brake elements and motor. Therefore, Nisley does not teach every element of Applicant's claim 17 for at least this additional reason.

Accordingly, for at least the reasons set forth hereinabove, Applicant respectfully submits that Nisley does not anticipate Applicant's claim 16, or claims 17-19 that depend therefrom.

Claim rejections under 35 U.S.C. 103(a)

The Examiner rejects claims 1-11 and 13-15 under 35 U.S.C. 103(a) as being allegedly unpatentable over Nisley in view of United States Patent 4,715,486 to Burgdorf et al. ("Burgdorf" hereinafter). Applicant respectfully traverses.

Applicant's claim 1 recites *inter alia*:

"wherein the brake elements are provided, at least in part, with a surface coating which raises the coefficient of friction of the brake elements to a value greater than 0.2."

Applicant respectfully agrees with the Examiner's statement at page 4, paragraph 2, which concludes that Nisley does not teach that the brake elements are provided, at least in part, with a surface coating which raises the coefficient of friction of the brake elements to a value greater than 0.2. However, Applicant respectfully asserts that Burgdorf also does not teach brake elements are provided, at least in part, with a surface coating which raises the coefficient of friction of the brake elements to a value greater than 0.2. In fact, Burgdorf does not teach a surface coating that raises the coefficient of friction of the brake elements at all.

Instead, Burgdorf teaches a coating that is applied to the brake elements for the purpose of "wear-reducing," and actually further teaches at column 3, lines 42-43 the *coefficient of friction of a coated brake element is substantially the same as an uncoated brake element*. In fact, since the object of the coating in Burgdorf is to reduce wear, Applicant respectfully asserts that it would be reasonable to conclude that the coating should actually reduce the coefficient of friction of the braking elements. As such, Applicant respectfully submits that the proposed combination of Nisley and Burgdorf does not teach every element of Applicant's claim 1, or claims 2-11 and 13-15 that depend therefrom.

Applicant further notes that claim 15 recites a winding located such that the brake elements are accessible without requiring removal of the winding from the motor. As such, the proposed combination of Nisley and Burgdorf does not teach every element of claim 15 for the same reasons as discussed with regards to the 102 remarks as applied to claim 16.

Accordingly, Applicant respectfully submits that for at least the reasons set forth hereinabove, claims 1-11 and 13-15 are not obvious over the proposed combination of Nisley and Burgdorf.

Applicant respectfully submits that the rejections are herein overcome by way of the above remarks. Allowance of the claims is respectfully requested.

Applicant hereby petitions under 37 C.F.R. §§1.136, 1.137 for any necessary extensions of time for entry and consideration of the present Response.

If there are any charges with respect to this amendment, or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicant's attorneys.

The Examiner is invited to contact Applicant's attorneys at the below telephone number regarding this Response or otherwise concerning the present application.

Respectfully submitted,  
CANTOR COLBURN LLP

By:  \_\_\_\_\_

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Date:- May 4, 2007